DP-300,203

CLAIMS

Sub A1

1. An alternating current (AC) generator comprising a stator and a rotor, said rotor comprising a plurality of pole pairs, said stator comprising a first winding wound in a full pitch pattern and a second winding wound in a short pitch pattern.

2. The generator of claim 1 wherein said first and second windings are three-phase windings.

3. The generator of claim 1 wherein said first and second windings are physically offset one relative to another.

4. The generator of claim 3 wherein said first winding is wound in one of a delta and a wye configuration and said second winding is wound in the other one of said delta and wye configuration.

5. The generator of claim 4 wherein said full pitch pattern is wound in said wye configuration and said short pitch pattern is wound in said delta configuration.

6. A stator for an alternating current generator, said generator having a rotor with poles, comprising:

Sub A2

a substantially annular body portion;

a plurality of teeth extending radially inwardly from said annular body portion;

a plurality of slots defined between said teeth;

at least two windings wound around said teeth and inserted into said slots,

wherein the number of stator slots is equal to 2 x n x p, where p is the number of electrical phases per winding, and n is the number of rotor pole pairs, and

wherein a first one of said windings being wound in a full pitch pattern and a second one of said windings being wound in a short pitch pattern.

7. The stator of claim 6 wherein said windings are three-phase windings.

8. The stator of claim 6 wherein one of said first and second windings is wound in a wye configuration and the other one of said first and second windings is wound in a delta configuration.

9. The stator of claim 8 wherein said first and second windings are positionally shifted from each other by an electrical angle of 30 degrees.

10. The stator of claim 6 wherein said first and second windings are connected to a rectifier bridge.

11. A stator for an alternating current generator comprising at least a pair of multi-phase windings, one of the windings being a wye type winding and the other one of the windings being a delta type winding.

12. The stator of claim 11 wherein said windings are connected to the same rectifier bridge.

13. The stator of claim 12 wherein one of the windings is a full pitch winding and the other one of the windings is a short pitch winding.

14. The stator of claim 11 wherein said windings are offset according to the equation $\frac{90}{p}$ where the offset is in degrees (electrical) and p is the number of electrical phases per winding.

15. The stator of claim 14 wherein the offset is 30 degrees (electrical) for a pair of p=3 phase windings.

16. The stator of claim 11 comprising 2 x n x p slots wherein p is the number of electrical phases per winding and n is the number of rotor pole pairs.

17. The stator of claim 11 further comprising a plurality of teeth defining a plurality of slots.